

Keith Steward, Ph.D.

Hands-On AI Operations Builder | Agents & Automation

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[LinkedIn](#) | [IntelligentDataWorks.ai](#) | [IDW LinkedIn](#)

PROFILE

Hands-on AI operations builder who converts fragmented business processes into reliable agents, applications, data pipelines, and automated workflows. Personally built the core and first 80% of a production AI assistant platform, then expanded it to 70+ automations across more than 20 workflows with 99.9% availability. Combines Python, APIs, RAG, evaluation, cloud infrastructure, process redesign, product judgment, P&L ownership, and executive communication with a record of rapidly diagnosing operational bottlenecks and shipping pragmatic systems.

SELECTED CAREER HIGHLIGHTS

- Personally built full-stack AI capabilities using Python, FastAPI, LLMs, agents, RAG, PostgreSQL/PGVector, REST APIs, Docker, AWS, CDK, HTML, CSS, workflow orchestration, and production monitoring.
- Translated more than 20 operational workflows into 70+ AI capabilities, accelerating selected work by up to 50x while maintaining 99.9% availability and supporting 150+ early users.
- Owns company strategy, architecture, product management, customer discovery, hiring, a \$900,000 budget, cloud operations, releases, vendor choices, and cross-functional decisions as a technical co-founder.
- Built an enterprise data lake spanning 11 acquired businesses and reduced cross-ERP reporting from roughly two months to one day by aligning finance, supply chain, sales, marketing, and operations around prioritized use cases.
- Implemented evaluation, LLM-as-judge, guardrails, prompt-injection controls, observability, auditability, model routing, cost controls, CI/CD, testing, and incident-response practices for production AI.
- Advised more than 200 enterprises on AI, data, cloud, and operational modernization and repeatedly turned ambiguous business needs into working architecture, software, and measurable outcomes.

PROFESSIONAL EXPERIENCE

Technical Co-Founder | Intelligent DataWorks | Boston, MA | Aug 2023 to Present

Build and operate a production AI platform while personally owning architecture, implementation, product decisions, workflow analysis, releases, and cloud operations.

- Recruited and led 11 engineers selected from more than 400 applicants; established onboarding, architecture training, Agile sprints, mentoring, code review, delivery priorities, and production standards.
- Built the AssistX core and first 80% of its initial application hands-on using Python, FastAPI, LLMs, agents, RAG, PostgreSQL/PGVector, APIs, Docker, AWS, and CDK.
- Delivered 70+ automations across more than 20 workflows, accelerating selected work by up to 50x while sustaining 99.9% availability.
- Established AI evaluation, LLM-as-judge, guardrails, observability, auditability, model routing, cost controls, security, CI/CD, release, and incident-response practices.
- Own a \$900,000 budget, staffing, product and technical roadmaps, architecture, releases, cloud operations, and executive decisions across the venture.
- Initiated strategic acquisition discussions regarding IDW's AI platform as part of a planned transition to a senior AI/engineering leadership role.

Sr. Director of Engineering | SuccessKPI | Remote | Jun 2022 to Aug 2023

Built and led engineering for a new AI-powered workforce-management platform within a cloud-native enterprise SaaS company.

- Recruited and mentored eight engineers and one manager, with responsibility for performance reviews, compensation decisions, delivery standards, staffing, architecture, and roadmap execution.
- Directed a distributed Agile organization through production launch for four large customers, including the U.S. Departments of State and Education.
- Designed forecasting, machine-learning, optimization, and scheduling capabilities integrated with Amazon Connect, Genesys, and Talkdesk.

Sr. Director, Data Analytics & Operations | TriMark USA | Mansfield, MA | Aug 2021 to May 2022

Built the cloud data organization and operating model supporting enterprise analytics across a \$1B+ company and 11 divisions.

- Upskilled an initial four-person analytics team and expanded it into a seven-member AWS engineering organization with additional contractors.
- Aligned executives around more than 50 use cases and delivered the first enterprise data lake within ten months, reducing reporting from roughly two months to one day.

- Owned staffing, performance reviews, architecture, delivery planning, risk, change management, executive reporting, and cross-functional priorities.

Engineering Lead, Cloud Data Privacy & AI Governance | MassMutual | Boston, MA | Nov 2020 to Aug 2021

Led architecture and engineering across privacy, governance, Responsible AI, data, and cloud initiatives in a regulated enterprise.

- Guided five initiatives spanning policy automation, model transparency, bias, drift, monitoring, human oversight, auditability, data governance, and governance APIs.
- Partnered with Enterprise Architecture and SRE on AWS, security, IAM, CI/CD, event-driven, container, and infrastructure-as-code standards.
- Delivered a cloud-native privacy platform within eight months that automated approximately 90% of a formerly manual workflow.

VP of AI/ML | NorthBay Solutions | Boston, MA | Jan 2019 to Nov 2020 | (Role ended in company-wide COVID layoff).

Recruited from AWS by the CEO to build an enterprise AI/ML consulting practice and reusable cloud delivery capabilities.

- Led an 18-person distributed engineering team delivering the Data Lake Accelerator while remaining hands-on in initial product architecture and implementation.
- Advised enterprise clients on AI, ML, data, platform strategy, architecture, and production delivery across concurrent consulting engagements.
- Combined executive advisory, staffing, reusable standards, cloud architectures, and production systems for enterprise customers.

Sr. Specialist Solutions Architect, AI/ML & Big Data | Amazon Web Services | Boston, MA | May 2015 to Dec 2018

Helped establish and scale AWS AI/ML and data specialist capability while advising enterprise customers on production adoption.

- Advised more than 200 enterprises across North America on AI/ML, data platforms, architecture, governance, cloud adoption, and business outcomes.
- Founded and led technical communities totaling 180+ specialists, created 170+ enablement assets, and established standards and reusable client practices.
- Delivered 36 invited presentations, trained 180+ architects, and earned AWS ML Elite Gold and Platinum recognition.

EARLIER RELEVANT EXPERIENCE

- Led a 25-person team through development and launch of CambridgeSoft's Biological Notebook, translating complex scientific workflows into a commercial product.
- Led cloud and device software for an FDA-cleared connected dental scanner, bringing the product to market in approximately one year.

EDUCATION & RECOGNITION

Ph.D., Molecular Biology / Microbiology & Immunology, University of Western Ontario. AWS ML Elite Gold and Platinum; AWS re:Invent Rockstar; named inventor on multiple patents.

TECHNOLOGIES

Python • FastAPI • REST APIs • full-stack development • AI agents • agentic workflows • RAG • embeddings • vector databases • PostgreSQL • PGVector • LangChain • LangGraph • MCP • workflow automation • process redesign • data pipelines • ETL • SQL • AWS • Amazon Bedrock • SageMaker • Lambda • Docker • Kubernetes • AWS CDK • CI/CD • Git • Linux • testing • AI evaluation • LLM-as-judge • guardrails • observability • auditability • security • cost controls • product management • P&L • budgeting • vendor management • executive communication • cross-functional operations • change management